

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for modifying memory on at least one control device, from a remote host device, without interrupting the operation of the at least one control device, wherein the at least one control device and the host device are coupled through a Fieldbus communications network, the method comprising:

transferring data from the host device to the at least one control device during
unscheduled communications periods;

storing the transferred data to a respective ~~an~~ inactive memory area; and,

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redirecting the ~~at least one control instrument device~~ microprocessor, during ana
~~microprocessor-idle period of the at least one control device microprocessor~~, to
execute the stored data in the inactive memory area.

2. (Currently amended) A method according to claim 1, further comprising verifying the stored data in the respective inactive memory areas.

3. (Currently amended) A method according to claim 1, wherein redirecting the at least one control device microprocessor ~~further~~ comprises providing the at least one control device microprocessor with entry points to the stored data.

4. (Currently amended) A method according to claim 1, wherein transferring data ~~further~~ comprises transmitting entry points.

5. (Currently amended) A method according to claim 1, wherein transferring data ~~further~~ comprises transmitting executable instructions.

6. (Currently amended) A method according to claim 1, wherein transferring data ~~further~~ comprises synchronizing data transmissions between the host device and the at least one control device[[s]] to avoid interference with scheduled communications.

7. (Currently amended) A method according to claim 1, further comprising:
selecting the respective ~~at least one active~~ memory area; and,

inactivating the respective selected active memory area such that the at least one control device microprocessor does not execute data in the respective selected active memory area.

8. (Currently amended) A method according to claim 1, wherein redirecting the microprocessor ~~further~~ comprises issuing an upgrade request from the host device to the at least one control device[[s]].

9. (Currently amended) A method according to claim 8, wherein issuing an upgrade request ~~further~~ comprises coordinating at least one upgrade command from the host device to the at least one control device.

10 (Currently amended) A method according to claim 1, wherein redirecting the microprocessor ~~further~~ comprises:

monitoring at least one parameter; and,

communicating a command to redirect the at least one control device microprocessor when the parameter attains a specified value.

11. (Currently amended) A system for modifying memory on at least one control device, from a remote host device, without interrupting the operation of the at least one control device, wherein the at least one control device and the host device are coupled through a Fieldbus communications network, ~~the system comprising where the~~ at least one control device comprises:

~~at least one control device, the control devices further comprising~~ at least one active memory area and at least one inactive memory area;

at least one control device microprocessor to execute instructions and data in the at least one active memory area[[s]]; and,

a control device selector module to direct the at least one control device microprocessor to the at least one active memory area, the selector module further comprising a scheduling module to redirect the at least one control device microprocessor during microprocessor idle periods.

12. (Currently amended) A system according to claim 11, wherein the selector module ~~further~~ comprises entry points to direct the at least one control device microprocessor.

13. (Currently amended) A system according to claim 11, wherein the at least one control device microprocessor ~~further~~ comprises a memory verification module.

14. (Currently amended) A system according to claim 11, wherein:

the at least one active memory area comprises flash memory; and,

the at least one inactive memory area comprises flash memory.

15. (Currently amended) A system according to claim 11, wherein the host device ~~further~~ comprises:

a Fieldbus communications module to access the Fieldbus communications network;

a control module to receive, transmit, and display commands and data between the

Fieldbus communications network and a host device user; and,

a control device communications module to transmit and receive commands and data

between the host device and the at least one control device.

16. (Original) A system according to claim 15, wherein the control module further comprises a user interface.

17. (Original) A system according to claim 11, wherein the host device is a microprocessor-based device.

18. (Original) A system according to claim 11, wherein:

the active memory data comprises executable instructions and data; and,

the inactive memory data comprises executable instructions and data.